

WHAT IS CLAIMED IS:

1. A device for compressing and encrypting data, comprising:  
a compressor for compressing original data with reference  
5 to a reference table;  
an encryptor for encrypting the reference table itself or  
information necessary to reconstruct the reference table; and  
a multiplexor for multiplexing compressed data obtained from  
the compressor and encrypted data obtained from the encryptor to  
10 create multiplexed data, wherein the multiplexed data is output  
as an encryption result.
2. The device of claim 1, wherein the reference table is a  
quantization table determining quantization step size when  
15 quantizing values of respective frequency components of the original  
data.
3. The device of claim 1, wherein the reference table is a coding  
table determining a relationship between data values and code words  
20 when performing entropy encoding of data.
4. The device of claim 1, wherein the encryptor encrypts  
parameters necessary for interpreting data acquired from  
decompression of the compressed data.
- 25 5. The device of claim 5, further provided with a data extractor  
for extracting partial data from the compressed data, and wherein

the encryptor further encrypts partial data extracted from the compressed data by the data extractor, and the multiplexor multiplexes data remaining having the partial data removed from the compressed data with the encryption result from the encryptor  
5 to generate multiplexed data.

6. The device of claim 1, further provided with reference table changer for changing at least one of the table entry values in the reference table depending on at least one of the nature of  
10 the original data or compression conditions of the data compression, wherein the compressor performs data compression using the reference table that has been changed by the reference table changing means.

15 7. The device of claim 1, further provided with reference table changer for changing table size of the reference table, wherein the compressor performs data compression using the reference table that has been changed in size by the reference table changing means.

20 8. A device for reproducing original data by decompressing and decrypting data that has been compressed and encrypted, comprising:

a demultiplexor for extracting compressed data and  
25 encrypted data from input multiplexed data;

a decoder for obtaining a reference table to be referenced when performing data decompression by decoding the encrypted

data; and

a decompressor for referencing the reference table to decompress the compressed data, wherein decompressed data from the decompressor is output as a decoded result.

5

9. The device of claim 8, wherein the reference table is a quantization table determining a quantization step size when carrying out quantization of values of respective frequency components of the original data.

10

10. The device of claim 8, wherein the reference table is a coding table determining a relationship between data values and code words when performing entropy encoding of data.

15

11. The device of claim 8, wherein partial data necessary to restore the original data is removed from the compressed data, the encrypted data is the reference table and partial data that has been removed from the compressed data encrypted, the decoder obtains the reference table and the partial data by decoding the encrypted data, and the decompressor complements the compressed data using the partial data obtained by the decoder and carries out decompression of the complemented result by referencing the reference table.

20

25

12. A method of compressing and encrypting data, comprising steps of:

compressing original data with reference to a reference table;

encrypting the reference table itself or information  
necessary to reconstruct the reference table; and

multiplexing compressed data acquired through the step of  
compressing original data and encrypted data acquired through  
5 the step of encrypting the information to create and output  
multiplexed data.

13. A method of decompressing and decrypting data that has been  
compressed and encrypted, comprising steps of:

10 extracting compressed data and encrypted data from input  
multiplexed data;

restoring a reference table to be referenced when carrying  
out data decompression by decoding the encrypted data; and

referencing the reference table to decompress the  
15 decompressed data and outputting the decompressed result.

14. A computer readable storage medium storing a program for  
causing a computer to execute steps of:

compressing original data with reference to a reference  
20 table;

encrypting the reference table itself or information  
necessary to reconstruct the reference table; and

multiplexing compressed data acquired through the step of  
compressing original data and encrypted data acquired through  
25 the step of encrypting the information to create and output  
multiplexed data.

15. A computer readable storage medium storing a program for causing a computer to execute steps of:

extracting compressed data and encrypted data from input multiplexed data;

5 restoring a reference table to be referenced when carrying out data decompression by decoding the encrypted data; and

referencing the reference table to decompress the decompressed data and outputting the decompressed result.

10